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 02sep99 14:26:39 User208669 Session D1500.1  
 \$0.19 0.057 DialUnits File1  
 \$0.19 Estimated cost File1  
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File 155:MEDLINE(R) 1966-1999/Oct W3

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\*File 155: reloaded, note accession numbers changed.

# Set Items Description

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? s dna(w)vaccine?

520570 DNA

77908 VACCINE?

S1 447 DNA(W)VACCINE?

? s two or 2

1239582 TWO

1837558 2

S2 2606890 TWO OR 2

? s s1 and s2

447 S1

2606890 S2

S3 145 S1 AND S2

? t s3/7/16 21 25 31 36 65

3/7/16

DIALOG(R)File 155:MEDLINE(R)

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09962064 99217703

Protection from pathogenic SIV challenge using multigenic DNA vaccines.

Haigwood NL; Pierce CC; Robertson MN; Watson AJ; Montefiori DC; Rabin M;

Lynch JB; Kuller L; Thompson J; Morton WR; Benveniste RE; Hu SL; Greenberg

P; Mossman SP

Seattle Biomedical Research Institute, WA 98109, USA.

haigwood@u.washington.edu

Immunol Lett (NETHERLANDS) Mar 1999, 66 (1-3) p183-8, ISSN 0165-2478

Journal Code: GH

Contract/Grant No.: AI 26503, AI, NIAID; RR00166, RR, NCCR

Languages: ENGLISH

Document type: JOURNAL ARTICLE

To assess DNA immunization as a strategy for protecting against HIV

infection in humans, we utilized SIVmne infection of Macaca fascicularis as

a vaccine challenge model with moderate pathogenic potential. We compared

the efficacy of DNA immunization alone and in combination with subunit

protein boosts. All of the structural and regulatory genes of SIVmne clone 8 were cloned into mammalian expression vectors under the control of the CMV IE-1 promoter. Eight M. fascicularis were immunized twice with 3 mg of plasmid DNA divided between two sites; intramuscular and intradermal. Four primed macaques received a further two DNA immunizations at weeks 16-36, while the second group of four were boosted with 250 microg recombinant gp160 plus 250 microg recombinant Gag-Pol particles formulated in MF-59 adjuvant. Half of the controls received four immunizations of vector DNA; half received two vector DNA and two adjuvant immunizations. As expected, humoral immune responses were stronger in the macaques receiving subunit boosts, but responses were sustained in both groups. Significant neutralizing antibody titers to SIVmne were detected in one of the subunit-boosted animals and in none of the DNA-only animals prior to challenge. T-cell proliferative responses to gp160 and to Gag were detected in all immunized animals after three immunizations, and these responses increased after four immunizations. Cytokine profiles in PHA-stimulated PBMC taken on the day of challenge showed trends toward Th1 responses in 2/4 macaques in the DNA vaccinated group and in 1/4 of the DNA plus subunit vaccinated macaques; Th2 responses in 3/4 DNA plus subunit-immunized macaques; and Th0 responses in 4/4 controls. In bulk CTL culture, SIV specific lysis was low or undetectable, even after four immunizations. However, stable SIV Gag-Pol- and env-specific T-cell clones (CD3+ CD8+) were isolated after only two DNA immunizations, and Gag-Pol- and Nef-specific CTL lines were isolated on the day of challenge. All animals were challenged at week 38 with SIVmne uncloned stock by the intrarectal route. Based on antibody anamnestic responses (western, ELISA, and neutralizing antibodies) and virus detection methods (co-culture of PBMC and LNMC, nested set PCR- of DNA from PBMC and LNMC, and plasma QC-PCR), there were major differences between the groups in the challenge outcome. Surprisingly, sustained low virus loads were observed only in the DNA group, suggesting that four immunizations with DNA only elicited more effective immune responses than two DNA primes combined with two protein boosts. Multigenic DNA vaccines such as these, bearing all structural and regulatory genes, show significant promise and may be a safe alternative to live-attenuated vaccines.

3/7/21

DIALOG(R)File 155:MEDLINE(R)

(c) format only 1999 Dialog Corporation. All rts. reserv.

09937208 99218408

Utilization of MHC class I transgenic mice for development of minigene

DNA vaccines encoding multiple HLA-restricted CTL epitopes.

Ishioka GY; Fikes J; Hermanson G; Livingston B; Crimi C; Qin M; del

Guercio MF; Oseroff C; Dahlberg C; Alexander J; Chesnut RW; Sette A

Epimune, San Diego, CA 92121, USA. gishioka@epimune.com

J Immunol (UNITED STATES) Apr 1 1999, 162 (7) p3915-25, ISSN

0022-1767 Journal Code: IFB

Contract/Grant No.: IR21AI-42699-01, AI, NIAID; AI-38584-03, AI, NIAID; N01-AI-45241, AI, NIAID  
 Languages: ENGLISH

#### Document type: JOURNAL ARTICLE

We engineered a multiepitope DNA minigene encoding nine dominant HLA-A2.1- and A11-restricted epitopes from the polymerase, envelope, and core proteins of hepatitis B virus and HIV, together with the PADRE (pan-DR epitope) universal Th cell epitope and an endoplasmic reticulum-translocating signal sequence. Immunization of HLA transgenic mice with this construct resulted in: 1) simultaneous CTL induction against all nine CTL epitopes despite their varying MHC binding affinities; 2) CTL responses that were equivalent in magnitude to those induced against a lipopeptide known to be immunogenic in humans; 3) induction of memory CTLs up to 4 mo after a single DNA injection; 4) higher epitope-specific CTL responses than immunization with DNA encoding whole protein; and 5) a correlation between the immunogenicity of DNA-encoded epitopes in vivo and the in vitro responses of specific CTL lines against minigene DNA-transfected target cells. Examination of potential variables in minigene construct design revealed that removal of the PADRE Th cell epitope or the signal sequence, and changing the position of selected epitopes, affected the magnitude and frequency of CTL responses. Our results demonstrate the simultaneous induction of broad CTL responses in vivo against multiple dominant HLA-restricted epitopes using a minigene DNA vaccine and underline the utility of HLA transgenic mice in development and optimization of vaccine constructs for human use.

3/7/25

DIALOG(R)File 155:MEDLINE(R)

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09903963 99095684

Development of a multigenic plasmid vector for HCV DNA immunization. Papa S; Rinaldi M; Mangia A; Parrella P; Signori E; Lombardi L; Fazio VM Laboratory for Molecular Oncology and Gene Therapy, IRCCS H. Casa Sollevio Sofferenza, San Giovanni Rotondo, FG, Italy.

Res Virol (FRANCE) Sep-Oct 1998, 149 (5) p315-9, ISSN 0923-2516  
 Journal Code: R7E

Languages: ENGLISH

#### Document type: JOURNAL ARTICLE

HCV viral nucleocapsid protein (C), non-structural protein 3 (NS3) and the envelope glycoproteins E1 and E2 are candidate immune targets for developing anti-HCV DNA vaccine. Nevertheless, the immune response elicited by these antigens often appears weak and/or transient. Different approaches have been studied for enhancing and/or modulating the immune response of the DNA vaccine. On the basis of a prototype multigenic plasmid vector constituted of two different transcription cassettes (pRC100), we have developed a plasmid vector that allows the independent and simultaneous expression of murine IL2 and of an antigenic domain of the HCV NS3 C

terminus (pRC112-HCV). The highly conserved NS3 region spans from nt 4403 to nt 4829 and contains two putative B and T epitopes. The development of this multigenic plasmid vector may combine the expression and local production of an immunomodulatory molecule (mIL2) together with the possibility of addressing the host immune response to the most immunogenic and conserved epitopes, specifically tailored in the plasmid vector.

3/7/31

DIALOG(R)File 155:MEDLINE(R)

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09845660 99075528

Effect of vaccination route and composition of DNA vaccine on the induction of protective immunity against pseudorabies infection in pigs.

van Rooij EM; Haagsmans BL; de Visser YE; de Bruin MG; Boersma W; Bianchi AT

Department of Mammalian Virology and Immunology, Institute for Animal Science and Health, Lelystad, Netherlands. e.m.a.vanrooij@id.dlo.nl

Vet Immunol Immunopathol (NETHERLANDS) Nov 24 1998, 66 (2) p113-26,

ISSN 0165-2427 Journal Code: XCB

Languages: ENGLISH

#### Document type: JOURNAL ARTICLE

Vaccination with naked DNA may be an alternative to conventional vaccines because it combines the efficacy of attenuated vaccines with the biological safety of inactivated vaccines. We recently showed that the vaccination with naked DNA coding for the immunorelevant glycoprotein D (gD) of pseudorabies virus (PRV) induced both antibody and cell-mediated immunity in pigs and provided protection against challenge infection. To determine whether the efficacy of the naked DNA vaccination against PRV could be improved, we compared three sets of variables. First, the efficacy of the naked DNA vaccine coding only for the immunorelevant gD was compared with a cocktail vaccine containing additional plasmids coding for two other immunorelevant glycoproteins, gB and gC. Second, the intramuscular route of vaccination was compared with the intradermal route. Third, the commonly used needle method of inoculation was compared with the needleless Pigjet injector method. Five groups of five pigs were vaccinated three times at 4-weeks intervals and challenged with the virulent NIA-3 strain of PRV 6 weeks after the last vaccination. Results showed that although the cocktail vaccine induced stronger cell-mediated immune responses than the vaccine containing only gD plasmid, both vaccines protected pigs equally well against challenge infection. Intradermal inoculation with a needle induced significantly stronger antibody and cell-mediated immune responses and better protection against challenge infection than intramuscular inoculation. Our data show that the route of administering DNA vaccines in pigs is important for an optimal induction of protective immunity.

3/7/36

DIALOG(R)File 155:MEDLINE(R)

- (c) format only 1999 Dialog Corporation. All rts. reserv.  
09786680 99011480  
Engineering DNA vaccines via co-delivery of co-stimulatory molecule genes.  
Kim JJ; Nottingham LK; Wilson DM; Bagarazzi ML; Tsai A; Morrison LD; Javadian A; Chalian AA; Agadjanyan MG; Weiner DB  
Department of Chemical Engineering, University of Pennsylvania, Philadelphia 19104, USA.  
Vaccine (ENGLAND) Nov 1998, 16 (19) p1828-35, ISSN 0264-410X  
Journal Code: X60  
Languages: ENGLISH  
Document type: JOURNAL ARTICLE  
DNA immunization has been investigated as a potential immunization strategy against infectious diseases and cancer. To enhance a DNA vaccine's ability to induce CTL response in vivo, we co-administered CD80 and CD86 expression cassettes along with HIV-1 immunogens. This manipulation resulted in a dramatic increase in MHC class I-restricted and CD8+ T-cell-dependent CTL responses in both mice and chimpanzees. This strategy of engineering vaccine producing cells to be more efficient T-cell activators could be an important tool for optimizing antigen-specific T-cell-mediated immune responses in the pursuit of more rationally designed vaccines and immune therapies.
- 37/65  
DIALOG(R)File 155:MEDLINE(R)  
(c) format only 1999 Dialog Corporation. All rts. reserv.  
09465426 98202686  
Modulation of amplitude and direction of in vivo immune responses by co-administration of cytokine gene expression cassettes with DNA immunogens.  
Kim JJ; Trivedi NN; Nottingham LK; Morrison L; Tsai A; Hu Y; Mahalingam S; Dang K; Ahn L; Doyle NK; Wilson DM; Chattergoon MA; Chalian AA; Boyer JD; Agadjanyan MG; Weiner DB  
Department of Chemical Engineering, University of Pennsylvania, Philadelphia, USA.  
Eur J Immunol (GERMANY) Mar 1998, 28 (3) p1089-103, ISSN 0014-2980  
Journal Code: EN5  
Languages: ENGLISH  
Document type: JOURNAL ARTICLE  
Immunization with nucleic acids has been shown to induce both antigen-specific cellular and humoral immune responses in vivo. We hypothesize that immunization with DNA could be enhanced by directing specific immune responses induced by the vaccine based on the differential correlates of protection known for a particular pathogen. Recently we and others reported that specific immune responses generated by DNA vaccine could be modulated by co-delivery of gene expression cassettes encoding for IL-12, granulocyte-macrophage colony-stimulating factor and the
- co-stimulatory molecule CD86. To further engineer the immune response in vivo, we investigated the induction and regulation of immune responses following the co-delivery of pro-inflammatory cytokine (IL-1 alpha, TNF-alpha, and TNF-beta), Th1 cytokine (IL-2, IL-12, IL-15, and IL-18), and Th2 cytokine (IL-4, IL-5 and IL-10) genes. We observed enhancement of antigen-specific humoral response with the co-delivery of Th2 cytokine genes IL-4, IL-5, and IL-10 as well as those of IL-2 and IL-18. A dramatic increase in antigen-specific T helper cell proliferation was seen with IL-2 and TNF-alpha gene co-injections. In addition, we observed a significant enhancement of the cytotoxic response with the co-administration of TNF-alpha and IL-15 genes with HIV-1 DNA immunogens. These increases in CTL response were both MHC class I restricted and CD8+ T cell dependent. Together with earlier reports on the utility of co-immunizing using immunologically important molecules together with DNA immunogens, we demonstrate the potential of this strategy as an important tool for the development of more rationally designed vaccines.
- ? s co  
S4 872566 CO  
? s s3 and s4  
145 S3  
872566 S4  
S5 12 S3 AND S4  
? t s5/7/7-12
- 57/7  
DIALOG(R)File 155:MEDLINE(R)  
(c) format only 1999 Dialog Corporation. All rts. reserv.  
09223079 97414204  
Immunogenicity and efficacy of baculovirus-expressed and DNA-based equine influenza virus hemagglutinin vaccines in mice.  
Olsen CW; McGregor MW; Dybdahl-Sissoko N; Schram BR; Nelson KM; Lunn DP; Macklin MD; Swain WF; Hinshaw VS  
Department of Pathobiological Science, School of Veterinary Medicine, University of Wisconsin-Madison 53706, USA.  
Vaccine (ENGLAND) Jul 1997, 15 (10) p1149-56, ISSN 0264-410X  
Journal Code: X60  
Languages: ENGLISH  
Document type: JOURNAL ARTICLE  
Two fundamentally different approaches to vaccination of BALB/c mice with the hemagglutinin (HA) of A/Equine/Kentucky/1/81 (H3N8) (Eq/KY) were evaluated, that is, administration of HA protein vs administration of HA-encoding DNA. Each vaccine was tested for its immunogenicity and ability to provide protection from homologous virus challenge. HA protein was synthesized in vitro by infection of Sf21 insect cells with a recombinant baculovirus. Intranasal administration of this vaccine induced virus-specific antibodies, as measured by enzyme-linked immunosorbent assay (ELISA), but did not induce virus neutralizing (VN) antibodies. This route

of administration provided partial protection from virus challenge, but interestingly, this protection was completely abrogated, rather than enhanced, by co-administration of 10 micrograms of cholera holotoxin. As a second approach, mice were directly vaccinated *in vivo* by Acell gene gun delivery of plasmid DNA encoding the E<sub>q</sub>/K<sub>Y</sub> HA gene. This approach induced VN antibodies as well as virus-specific ELISA antibodies. When two doses of DNA vaccine were administered 3 weeks apart, mice were not protected from challenge, although they cleared the infection more rapidly than control mice. However, when the second DNA vaccination was delayed until 9 weeks after the first, 9 out of 10 vaccinated mice were completely protected. These results indicate that the time between initial and booster DNA vaccinations may be an important variable in determining DNA vaccination efficacy.

5/7/8

DIALOG(R)File 155:MEDLINE(R)

(c) format only 1999 Dialog Corporation. All rts. reserv.  
09144479 97368418

Class I-restricted CTL induction by mucosal immunization with naked DNA encoding measles virus haemagglutinin.

Etchart N; Buckland R; Liu MA; Wild TF; Kaiserlian D  
INSERM U404 Immunity and Vaccination, Institut Pasteur de Lyon, France.  
J Gen Virol (ENGLAND) Jul 1997, 78 (Pt 7) p1577-80, ISSN 0022-1317  
Journal Code: I9B

Languages: ENGLISH

Document type: JOURNAL ARTICLE

We have investigated the class I-restricted CTL response specific for measles virus haemagglutinin (HA) in the spleens of mice immunized by various mucosal routes with a DNA plasmid carrying the HA gene (pVIj-HA). A single immunization with recombinant DNA injected in the buccal mucosa induced an HA-specific CTL response. Similarly, nasal immunization with the DNA vaccine induced primary CTLs against measles virus HA. Booster immunization did not enhance the CTL activity. Oral or intrajejunal immunization with the plasmid induced a CTL response of lower magnitude. However, this could be potentiated by co-administration of the mucosal adjuvant cholera toxin or cationic lipids (DOTAP). These data show that a CTL response can be generated by mucosal vaccination using DNA vaccines.

5/7/9

DIALOG(R)File 155:MEDLINE(R)

(c) format only 1999 Dialog Corporation. All rts. reserv.  
09027941 97234548

Immunomodulatory effects of a plasmid expressing B7-2 on human immunodeficiency virus-1-specific cell-mediated immunity induced by a plasmid encoding the viral antigen.

Tsuji T; Hamajima K; Ishii N; Aoki I; Fukushima J; Xin KQ; Kawamoto S; Sasaki S; Matsunaga K; Ishigatsubo Y; Tani K; Okubo T; Okuda K

Department of Bacteriology, Yokohama City University School of Medicine, Japan.

Eur J Immunol (GERMANY) Mar 1997, 27 (3) p782-7, ISSN 0014-2980  
Journal Code: EN5

Languages: ENGLISH

Document type: JOURNAL ARTICLE

B7 co-stimulation is essential for activating resting T cells following antigen recognition by the T cell receptor. To determine whether B7 has adjuvant activities on human immunodeficiency virus type-1 (HIV-1)-specific immunity induced by inoculation of a plasmid encoding HIV-1 env and rev (DNA vaccine), B7-1 and B7-2 expression plasmids were co-inoculated with the DNA vaccine. The delayed-type hypersensitivity response and cytotoxic T lymphocyte (CTL) activity were significantly enhanced when B7-2 expression plasmid was co-inoculated with the DNA vaccine, but were unaffected when the B7-1 expression plasmid was used with the vaccine instead. The immunological response enhanced by B7-2 decreased below the level of mice immunized with the DNA vaccine in combination with CTLA4Ig, an inhibitor of the B7/CD28 co-stimulatory signal, suggesting that this signal is critical for the enhanced response induced by co-inoculation of the DNA vaccine and B7-2 expression plasmid. This enhancement appeared to occur via an interferon-gamma (IFN-gamma)-dependent mechanism, as combined administration of the B7-2 plasmid and neutralizing anti-IFN-gamma antibody abrogated the virus-specific cell-mediated immunity. These results suggest that this gene-based co-inoculation strategy using HIV-1 viral antigen and B7-2 co-stimulatory molecule could be a powerful means of combating HIV-1 infection.

5/7/10

DIALOG(R)File 155:MEDLINE(R)

(c) format only 1999 Dialog Corporation. All rts. reserv.  
08511567 96135362

A genetic approach to idiotypic vaccination for B cell lymphoma.

Stevenson FK; Zhu D; King CA; Ashworth LJ; Kumar S; Thompson A; Hawkins RE

Molecular Immunology Group, Tenovus Laboratory, Southampton University Hospitals, United Kingdom.

Ann N Y Acad Sci (UNITED STATES) Nov 27 1995, 772 p212-26, ISSN 0077-8923  
Journal Code: 5NM  
Languages: ENGLISH

Document type: JOURNAL ARTICLE; REVIEW; REVIEW, TUTORIAL

Idiotypic immunoglobulin expressed by a B cell tumor presents a clear tumor antigen which could be attacked by vaccination of the host.

Vaccination with idiotypic protein has been shown to induce protective immunity against lymphoma, but application to patients is limited by the requirement of "personal" vaccines for each patient. A genetic approach enables V-region sequences encoding idiotypic antigen to be rescued from tumor biopsies, and to be assembled as scFv fragments. These can be

expressed in bacteria to produce recombinant protein, or used directly as naked DNA vaccines. Intramuscular injection of idiotypic DNA from a mouse B cell lymphoma induces low levels of syngeneic anti-idiotypic antibody in serum. Response can be stimulated by co-injection of DNA plasmids encoding either IL-2 or GM-CSF, and T cells which proliferate in response to idiotypic IgM are generated. However, protection against tumor appears to be blocked by continuing secretion of idiotypic antigen from the persisting vaccine vector, which forms immune complexes with serum antibody. Methods for regulating the level of scFv to engage the immune system, but not to block the effector arm are being investigated. Similar control will be applicable to the cytokine vectors, which can deliver encoded cytokines designed to activate immune pathways for tumor destruction. Experience gained in lymphoma may be extended to other tumors with defined tumor antigens. (23 Refs.)

5/7/11

DIALOG(R)File 155:MEDLINE(R)

(c) format only 1999 Dialog Corporation. All rts. reserv.

08128499 95185112

Towards a DNA vaccine against tuberculosis.

Lowrie DB; Tascon RE; Colston MJ; Silva CL

Laboratory for Leprosy and Mycobacterial Research, National Institute for Medical Research, London, UK.

Vaccine (ENGLAND) Dec 1994, 12 (16) p1537-40, ISSN 0264-410X

Journal Code: X60

Languages: ENGLISH

Document type: JOURNAL ARTICLE; REVIEW; TUTORIAL

Expression of the gene for a single mycobacterial antigen (Mycobacterium leprae hsp65) in adult Balb/c mice resulted in substantial cell-mediated protection against challenge with M. tuberculosis. CD4 and CD8 T cells cloned from spleens of such immunized mice passively transferred protection to non-immunized mice, and CD8 cells selectively lysed macrophages infected with M. tuberculosis. Three modes of expressing the gene have been tested: (1) expression from a retroviral vector (pZIPNeoSV) in implanted J774 tumour cells, (2) expression from the same vector via bone marrow cells transfected in vitro and used to reconstitute irradiated mice, and (3) in a preliminary experiment, from CMV immediate-early and hydroxymethylglutaryl Co-A reductase promoters injected as plasmid DNA into muscle. (20 Refs.)

5/7/12

DIALOG(R)File 155:MEDLINE(R)

(c) format only 1999 Dialog Corporation. All rts. reserv.

06617467 90224269

Protective efficacy of a recombinant DNA vaccine against hepatitis B in male homosexuals: results at 36 months.

Goilav C; Prinsen H; Piot P

Institute of Tropical Medicine, Antwerp, Belgium.

Vaccine (ENGLAND) Mar 1990, 8 Suppl pS50-2; discussion S60-2, ISSN 0264-410X Journal Code: X60

Languages: ENGLISH

Document type: CLINICAL TRIAL; CONTROLLED CLINICAL TRIAL; JOURNAL ARTICLE

An open study with a recombinant DNA yeast-derived hepatitis B vaccine (YDV) was carried out in homosexual men to assess the protective efficacy of this vaccine. A total of 278 seronegative volunteers were enrolled to receive three intramuscular doses of either 20 or 40 micrograms at months 0, 1 and 6. Serum specimens were taken at various times up to 36 months; relevant information regarding the occurrence of other sexually transmitted diseases (STDs) and sexual behaviour was also collected annually. One month after the third injection, the seroconversion rate in both groups was 99%. The geometric mean anti-HBs titre at this time was higher for subjects receiving 40 micrograms doses although a similar percentage of the vaccinees had titres greater than 10 mIU ml<sup>-1</sup> in both groups. Compared with a historical control group in which the annual incidence of hepatitis B infection was 12%, only two vaccinees developed markers of infection during the immunization period and none thereafter. While an important increase in the use of condoms was noted during the 1984-87 study period and the incidence of some STDs declined, these changes could not solely account for the decrease in hepatitis B infection in the study population.

? s coadminist? or coinject?

3686 COADMINIST?

854 COINJECT?

S6 4517 COADMINIST? OR COINJECT?

? ds

Set Items Description  
S1 447 DNA(W)VACCINE?

S2 2606890 TWO OR 2

S3 145 S1 AND S2

S4 872566 CO

S5 12 S3 AND S4

S6 4517 COADMINIST? OR COINJECT?

? s s1 and (s4 or s6) not s5

447 S1

872566 S4

4517 S6

12 S5

S7 32 S1 AND (S4 OR S6) NOT S5

? t s7/6/1-32

7/6/1

10053590 99363966

Activity and safety of DNA plasmids encoding IL-4 and IFN gamma.

Feb 1999

- 7/6/2  
10040022 99250332  
Co-immunization with DNA vaccines expressing granulocyte-macrophage colony-stimulating factor and mycobacterial secreted proteins enhances T-cell immunity, but not protective efficacy against *Mycobacterium tuberculosis*.  
Apr 1999
- 7/6/3  
10038891 99343954  
Immunization of RANTES expression plasmid with a DNA vaccine enhances HIV-1-specific immunity.  
Jul 1999
- 7/6/4  
10034738 99294900  
Immune responses and protection obtained by oral immunization with rotavirus VP4 and VP7 DNA vaccines encapsulated in microparticles.  
Jun 20 1999
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10009795 99231962  
Epitope-specific cytotoxic T lymphocyte induction by minigene DNA immunization.  
Apr 9 1999
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09939385 99171736  
IL-6 induces long-term protective immunity against a lethal challenge of influenza virus.  
Feb 5 1999
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09926276 99156558  
Cytokine molecular adjuvants modulate immune responses induced by DNA vaccine constructs for HIV-1 and SIV.  
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09900981 99172230  
IL-12 gene as a DNA vaccine adjuvant in a herpes mouse model: IL-12 enhances Th1-type CD4+ T cell-mediated protective immunity against herpes simplex virus-2 challenge.  
Mar 1 1999
- 7/6/9  
09850518 99132267
- Macrophage inflammatory protein-1alpha (MIP-1alpha) expression plasmid enhances DNA vaccine-induced immune response against HIV-1.  
Feb 1999
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09812083 99010934  
Protective cytotoxic T lymphocyte responses against paramyxoviruses induced by epitope-based DNA vaccines: involvement of IFN-gamma.  
Oct 1998
- 7/6/11  
09808853 99102609  
In vivo modulation of vaccine-induced immune responses toward a Th1 phenotype increases potency and vaccine effectiveness in a herpes simplex virus type 2 mouse model.  
Jan 1999
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09782666 99057825  
Modulating the immune response to genetic immunization.  
Dec 1998
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09710093 98414429  
Reduction of antigen expression from DNA vaccines by coadministered oligodeoxynucleotides.  
Aug 1998
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09667329 98444396  
Intranasal administration of human immunodeficiency virus type-1 (HIV-1) DNA vaccine with interleukin-2 expression plasmid enhances cell-mediated immunity against HIV-1.  
Jul 1998
- 7/6/15  
09536710 98214888  
Oral delivery of micro-encapsulated DNA vaccines.  
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09511075 98240996  
DNA vaccines encoding full-length or truncated Neu induce protective immunity against Neu-expressing mammary tumors.  
May 1 1998
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- 09489876 98230477  
Development of Th1 and Th2 populations and the nature of immune responses to hepatitis B virus DNA vaccines can be modulated by codelivery of various cytokine genes.  
Feb 1 1998
- 7/6/18  
09407615 98074569  
Protective immunity against heterologous challenge with encephalomyocarditis virus by VP1 DNA vaccination: effect of coinjection with a granulocyte-macrophage colony stimulating factor gene.  
Dec 1997
- 7/6/19  
09405317 98129331  
Delivery of multiple CD8 cytotoxic T cell epitopes by DNA vaccination.  
Feb 15 1998
- 7/6/20  
09401629 98090113  
An HIV type 2 DNA vaccine induces cross-reactive immune responses against HIV type 2 and SIV.  
Dec 10 1997
- 7/6/21  
09398125 98105827  
Coadministration of DNA encoding interleukin-6 and hemagglutinin confers protection from influenza virus challenge in mice.  
Feb 1998
- 7/6/22  
09323736 97461118  
Multi-epitope DNA vaccines.  
Aug 1997
- 7/6/23  
09310668 98020887  
Oral delivery of poly(lactide-co-glycolide) encapsulated vaccines.  
Feb 1997
- 7/6/24  
09296159 98031755  
Costimulation provided by DNA immunization enhances antitumor immunity.  
Nov 15 1997
- 7/6/25  
09223136 97378941
- Development of a multicomponent candidate vaccine for HIV-1.  
Jun 1997
- 7/6/26  
09223129 97378934  
DNA-based immunization against hepatitis B surface antigen (HBsAg) in normal and HBsAg-transgenic mice.  
Jun 1997
- 7/6/27  
09219238 97461483  
Intranasal immunization of a DNA vaccine with IL-12- and granulocyte-macrophage colony-stimulating factor (GM-CSF)-expressing plasmids in liposomes induces strong mucosal and cell-mediated immune responses against HIV-1 antigens.  
Oct 1 1997
- 7/6/28  
09035925 97256584  
Contribution of CpG motifs to the immunogenicity of DNA vaccines.  
Apr 15 1997
- 7/6/29  
08967279 97190746  
HIV-1-specific cell-mediated immunity is enhanced by co-inoculation of TCA3 expression plasmid with DNA vaccine [published erratum appears in Immunology 1997 Jul;91(3):501]  
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08930283 97146052  
In vivo engineering of a cellular immune response by coadministration of IL-12 expression vector with a DNA immunogen.  
Jan 15 1997
- 7/6/31  
08461264 96100708  
Idiotypic DNA vaccines against B-cell lymphoma.  
Jun 1995
- 7/6/32  
07422570 92108305  
[Prevalence of liver damage in alcoholics and drug addicts]  
Prevalenza del danno epatico in alcol e tossicodipendenti.  
Nov 1991
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\$2.40 12 Type(s) in Format 7  
\$2.40 201 Types  
\$10.17 Estimated cost File155  
FTSNET 0.266 Hrs.  
\$10.17 Estimated cost this search  
\$10.36 Estimated total session cost 2.648 DialUnits  
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